

plan is for each to own a one-third share in a joint venture, Phoenix, aimed at serving the multibillion-dollar market for global communications.<sup>60</sup>

63. Other firms similarly compete for position in these existing and emerging markets. For example, US West has come to an agreement with Continental Cablevision, which has a separate agreement with Time Warner. Electric utilities may provide a significant source of competition: many of them have excess fiber capacity<sup>61</sup> and large capital reserves, which make the telephone market appealing to them.

64. These investments, partnerships and market interpenetrations are powerfully impelled by potential economies on both the demand and the supply sides. The former spring from the attractiveness to consumers of one-stop shopping—purchasing expanding bundles of services, at attractive prices, from single, familiar suppliers. On the supply side, there are ubiquitous promised economies of scale and scope. The greater the capacity of switches and transport facilities, the lower are unit costs: this means the incremental costs of adding capacity are lower than average costs. Similarly, the use of common facilities permits the offer of additional services at incremental costs much lower than if they had to be provided on a stand-alone basis. Entry into new lines of business at rates above those low incremental costs provides the opportunity to earn contribution toward common and fixed costs and higher profits.

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<sup>60</sup> "With Variations, Sprint Announces European Pact," *The New York Times*, Late Edition, Friday, June 23, 1995, p. D2.

<sup>61</sup> For example, SCANA Corp., the parent company of South Carolina Gas and Electric, currently controls 2,500 route miles of cable fiber through its subsidiary MPX Systems, Inc., and is planning to double that. "Growing Utility Fiber Market Tempered by Considerable Hesitancy," *Fiber Optics News*, Vol. 15, No. 19, May 15, 1995.

65. These economies have a dynamic as well as a static aspect. Complementary goods become more plentiful and of higher quality as the number of users of any one of them—such as basic telephone service—increases. Since consumers seem to prefer the supplier of communications services that gives them access to the largest number of complementary services—video on demand, internet access, information services, database access—and tend to value the convenience of purchasing these services bundled from a single supplier, there is a very strong incentive for the various participants in this industry, once freed from legal and regulatory barriers, to compete in developing these new bundles of services.

66. In sum:

From all this dealmaking will emerge a new crop of supercarriers—companies that either on their own or through alliances will offer a full menu of electronic communications, a telebazaar with everything from video phones to Internet services to a single phone number that will follow you wherever you go.

... The companies most likely to come out on top are those with the best marketing skills, the strongest brands, the deepest pockets, and a familiarity with competition. In other words, AT&T, MCI and Sprint—the long-distance giants—are best positioned for the future.<sup>62</sup>

The impetus for the current move to join forces is burgeoning competition and demands from customers for better, simplified service. To respond, carriers worldwide are seeking the right combination of assets for offering a raft of local, long-distance and wireless services. To package these services, some carriers that lack the right mix of products must find partners or acquisitions lest they be picked clean by the aggressive entrants such as AT&T Corp., MCI Communications Corp. and others.<sup>63</sup>

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<sup>62</sup> Arnst, Catherine C. and Michael Mandel, "The Coming Telescramble: Deregulation Is Launching A \$1 Trillion Digital Free-For-All," *Business Week*, April 8, 1996, pp. 65-66; emphasis added.

<sup>63</sup> Keller, John J. and Gautam Naik, "Telecommunications: SBC-PacTel Merger Is Likely to Ring In An Era of Alliances Among Baby Bells," *The Wall Street Journal*, April 2, 1996, p. B1.

## **B. The Adverse Consequences of Asymmetrical Restrictions on the Ability to Compete Reciprocally**

67. As a general proposition, asymmetrical regulation attenuates both the incentives and the ability of some providers to avail themselves of these scope and scale economies and to pass the benefits on to their customers, under the pressures of competition. As a result, large benefits are lost and significant costs incurred.<sup>64</sup> Specifically,

- Stifling the incentives of RBOCs to offer new services costs society billions of dollars annually in lost consumer benefits.
- “One-stop shopping” can be worth a substantial part of the value of a product or service to consumers. Thus, competitors that can offer “one-stop shopping” have a considerable competitive advantage over those that cannot.<sup>65</sup>
- The sacrifices of scope economies entails artificially inflated production costs.

68. The upgrading and modernization of the switched public network and the fullest exploitation of its capability of offering a variety of sophisticated and innovative services—which are the central goals of the Telecommunications Reform Act—depend not just on freeing the telephone companies and all others from restrictions and handicaps on their ability to do so;

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<sup>64</sup> Hausman and Tardiff, *op. cit.*

<sup>65</sup> See for example, “Study Says Consumers Would Buy Bundled Services,” *Telecommunications Reports*, August 12, 1996. That article reports that almost 80 percent of U.S. households would buy bundled services from a single provider. Other studies have quantified the value of “one-stop shopping” to consumers. For example, see Testimony of Arthur T. Smith on behalf of Southern Bell, Docket No. 930330-TP (Fla. P.S.C. July 1, 1994). This preference for one-stop shopping cuts across cultures: a study of Japanese consumers has estimated the value of the ability to obtain calling services from a single provider at about 14 percent of the average price. Timothy J. Tardiff, “The Effects of Presubscription and Other Attributes on Long-Distance Carrier Choice,” *Information Economics and Policy*, Vol. 7, 1995, pp. 353-366.

it also requires offering all parties the full, undiluted incentives of a free market system to undertake the requisite, typically risky investments.

69. Those incentives are of two kinds. The first is the stimulus of competition itself. The strongest case for substituting the discipline of competition for that of regulation is the superior ability of the former to exert pressures on all producers to be efficient and innovative, if they are to survive, let alone prosper. The second is the self-interest of the telephone companies, freed from continuing restrictions on the services they are permitted to offer.

70. Particularly during the next several years, when we will necessarily continue to depend very heavily on the ILECs for accelerating the deployment of an advanced telecommunications infrastructure, it is essential that we not weaken the second of these incentives in a misguided effort to strengthen the first. Attempts to micromanage the process of deregulation, we have found in other industries, are more likely to produce distortions than actually to encourage efficient competition.<sup>66</sup> Ultimately, both incentive systems require the shrinking of regulation and of all such regulatory restrictions to the absolute minimum and entrusting protection of the public to deregulated competition—subject, as always, to the constraints of the antitrust laws. But in the interim, delay in allowing SBC and the other RBOCs the opportunity to offer both local and interexchange services is not only unnecessary to preserve equal competitive opportunities for equally efficient rivals. It would be blatantly anti-competitive, because it would unnecessarily deny the SBC the ability to offer the same

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<sup>66</sup> Kahn, Alfred E., "Applications of Economics to an Imperfect World," the Richard T. Ely lecture, *The American Economic Review, Papers and Proceedings*, Vol. 69, No. 2, May 1979, pp. 1-13.

combinations of services, exploiting the same economies of scope, as both Congress and the FCC have taken extraordinary pains to ensure will be available to their competitors. And by weakening both the ability and the incentives of the BOCs to invest in modern infrastructure and to innovate, it will tend to frustrate achievement of a central goal of the Act.

## **VI. SUMMARY AND CONCLUSIONS**

71. The desire of the BOCs to have the restriction on their ability to offer interLATA service lifted is a desire to compete: that is clearly the place to begin in assessing their petition. There can be no questioning the proposition, then, that the presumption in any system that is supposed to be governed by competition must be in favor of permitting such extensions of the operations of existing firms.

72. What the BOCs are asking for permission to do is, precisely, to extend their operations from the supply of the “raw material”—local access—into the supply of one of the major end-services making use of that input. Vertical integration of this kind is most likely to recommend itself to companies—and, by the same token, to be socially creative and competitive in its effects—when it represents a fuller use of existing capabilities—equipment, knowledge, managerial capabilities, marketing facilities—of the integrating firm—that is to say, when it represents a fuller exploitation of potential economies of scope.

73. That is obviously the case here. Subject to the Act and the FCC’s Interconnection Order, the same Southwestern Bell facilities—switches, transport facilities, marketing operations—as provide local exchange and intraLATA toll services can also supply long-

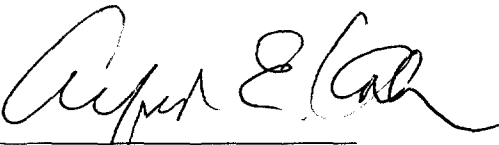
distance services, which, packaged with the others, are much more attractive to consumers than each or only some of them supplied separately. For exactly the same reasons, long-distance companies, cable and cellular operators are eager to use their existing capabilities and facilities to add local telephone services to their offerings. Integration in both directions would, manifestly, be competitive.

74. We have taken pains to assess the possibility that special circumstances sufficiently extreme in the opinion of the Department of Justice in the early 1980s to justify imposing the line-of-business limitations on the BOCs continue to justify a continuation of that prohibition of the intense competition that they are in a peculiarly excellent position to supply.

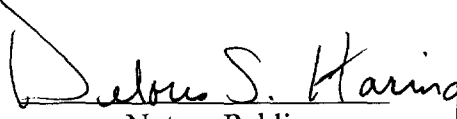
75. The ultimate economic question is whether SBC and the other BOCs can possibly, by the exercise of such diminishing but residual monopoly power at the local level as they possess, succeed in suppressing competition as an effective force in the market they wish to enter—suppress competition, that is to say, as contrasted with discommoding competitors.

76. And this leads to our final and in a real sense definitive point. We find the ultimate essential component of the successful strategy of cross-subsidization, predation or exclusionary tactics hypothesized by opponents of BOC entry into the interLATA market—namely, the permanent removal or disabling of competitors sufficient to enable the predator to recover the costs of those cross-subsidizations or other schemes by raising prices—flatly inconceivable. The incumbent long-distance providers are in command of 100 percent of the market. They have installed capacity that is not going to go away. The marginal cost of operating it is low, leaving its owners with latitude for matching price reductions more than

sufficient to dissuade any would-be predator. It is the present long-distance companies that are the dominant firms in that market. In these circumstances, we find it simply inconceivable that they would or could either be driven out of business or be so debilitated by discriminatory tactics practiced by the BOCs as to weaken the protection of their continued competitive presence. In these circumstances, entry by SBC and the other RBOCs could only be beneficial to consumers.

  
Alfred E. Kahn

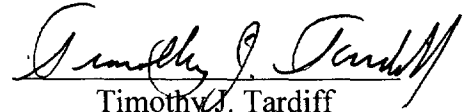
Subscribed and sworn before me this 14th day of April 1997.

  
Notary Public

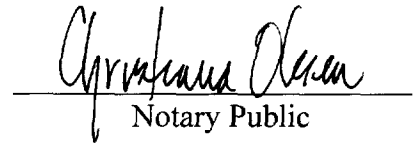
My commission expires 6/30/98.

**DELORES S. HARING**  
**Notary Public, State of New York**  
**No. 4766345**  
**Qualified in Tompkins County**  
**Commission Expires June 30, 1998**



  
Timothy J. Tardiff

Subscribed and sworn before me this 7th day of April 1997.

  
Notary Public

My commission expires September 18, 2003

## **ALFRED E. KAHN**

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Professor Kahn is the Robert Julius Thorne Professor of Political Economy, Emeritus, at Cornell University and a Special Consultant to NERA.

He has been Chairman of the New York Public Service Commission; Chairman of the Civil Aeronautics Board; and Advisor to the President (Carter) on Inflation and Chairman of the Council on Wage and Price Stability.

Professor Kahn received his Bachelor's and Master's degrees from New York University and a Doctorate in Economics from Yale University. Following service in the Army, he served as Chairman of the Department of Economics at Ripon College, Wisconsin. He moved to the Department of Economics at Cornell University, where he remained until he took leave to assume the Chairmanship of the New York Public Service Commission. During his tenure at Cornell, Professor Kahn served as Chairman of the Department of Economics, member of the Board of Trustees of the University and Dean of the College of Arts and Sciences.

Throughout his career, Professor Kahn has served on a variety of public and private boards and commissions including: the Attorney General's National Committee to Study the Antitrust Laws; the senior staff of the President's Council of Economic Advisors; the Economic Advisory Council of American Telephone & Telegraph Company; the National Academy of Sciences Advisory Review Committee on Sulfur Dioxide Emissions; the Environmental Advisory Committee of the Federal Energy Administration; the Public Advisory Board of the Electric Power Research Institute; the Board of Directors of the New York State Energy Research and Development Authority; the Executive Committee of the National Association of Regulatory Utility Commissioners; the National Commission for Review of Antitrust Laws and Procedures; the New York State Council on Fiscal and Economic Priorities; the Governor of New York's Fact-Finding Panel on Long Island Lighting Company's Nuclear Power Plant at Shoreham, L.I.; the Governor of New York's Advisory Committee on Public Power for Long Island; the National Governing Board of Common Cause; and, in 1990, as Chairman of the International Institute for Applied Systems Analysis Advisory Committee on Price Reform and Competition in the USSR.

He has also served as a court-appointed expert in *State of New York v. Kraft General Foods, Inc., et al.*, U.S. District Court, S.D.N.Y.; Advisor to New York Governor Carey on Telecommunications Policy; and as a consultant to the Attorneys General of New York, Pennsylvania and Illinois, the Ford Foundation, the National Commission on Food Marketing, Federal Trade Commission, Antitrust Division of the Department of Justice, the U.S. Department of Agriculture and the City of Denver on charging and financing of Stapleton Airport.

He has received L.L.D. honorary degrees from Colby College, Ripon College, Northwestern University, the University of Massachusetts and Colgate University, and an honorary D.H.L. from the State University of New York, Albany; he also received the Distinguished Transportation Research Award of the Transportation Board Forum, The Alumni Achievement Award of New York University, the award of the American Economic Association's Transportation and Public Utilities Group for Outstanding Contributions to Scholarship, The Henry Edward Salzberg Honorary Award from Syracuse University for Outstanding Achievement in the Field of Transportation, and the Burton Gordon Feldman Award for Distinguished Public Service from Brandeis University; and was elected to membership in the American Academy of Arts and Sciences and Vice President of the American Economic Association. He is a regular commentator on PBS's "The Nightly Business Report."

He has testified before many U.S. Senate and House Committees, the Federal Power Commission, the Federal Energy Regulatory Commission and numerous state regulatory bodies.

Professor Kahn's publications include *Great Britain in the World Economy*; *Fair Competition: The Law and Economics of Antitrust Policy* (co-authored); *Integration and Competition in the Petroleum Industry* (co-authored); and *The Economics of Regulation*. He has written numerous articles which have appeared in *The American Economic Review*, *The Quarterly Journal of Economics*, *The Journal of Political Economy*, *Harvard Law Review*, *Yale Journal on Regulation*, *Yale Law Journal*, *Fortune*, *The Antitrust Bulletin* and *The Economist*, among others.

**EDUCATION:**

**YALE UNIVERSITY**

Ph.D., Economics, 1942

**UNIVERSITY OF MISSOURI**

Graduate Study, 1937-1938

**NEW YORK UNIVERSITY**

M.A., Economics, 1937

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**EMPLOYMENT:**

1961-1974      **NATIONAL ECONOMIC RESEARCH ASSOCIATES, INC.**

1980-          Special Consultant

**CORNELL UNIVERSITY**

1947-1989      Assistant Professor; Associate Professor; Robert Julius Thorne Professor of Economics; Robert Julius Thorne Professor of Political Economy, Emeritus, 1989-; Chairman, Department of Economics; Dean, College of Arts and Sciences; on leave 1974-80.

**NEW YORK UNIVERSITY SCHOOL OF LAW**

Spring 1989      Visiting Meyer Professor of Law

**UNITED STATES GOVERNMENT**

1978-1980      Advisor on Inflation to President Carter

1978-1980      Chairman, Council on Wage and Price Stability

1977-1978      Chairman, Civil Aeronautics Board

1955-1957      Senior Staff, Council of Economic Advisors to the President

1943            U.S. Army, Private

1943            War Production Board

1942            Associate Economist, International Economics Unit, Bureau of Foreign and Domestic Commerce, Department of Commerce

1941-1942      Associate Economist, Antitrust Division, U.S. Department of Justice

**NEW YORK STATE PUBLIC SERVICE COMMISSION**

1974-1977      Chairman

**BROOKINGS INSTITUTION**

1940,

1950-1951      Staff Economist

**RIPON COLLEGE**

1945-1947      Assistant Professor, Chairman, Department of Economics

**TWENTIETH CENTURY FUND**

1944-1945	Research Economist
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1943-1944	Economist
	UNIVERSITY OF MISSOURI
1937-1938	Teaching Assistant

# CONSULTANCIES AND PROFESSIONAL ACTIVITIES:

1994-	American Airlines on code-sharing
1994-	Antitrust Division, U.S. Department of Justice, on the application of Ameritech for waivers of the interexchange restrictions in the AT&T Modified Final Judgment
1993-1994	Court-appointed expert in State of New York v. Kraft General Foods, Inc., et al., U.S. District Court, S.D.N.Y.
1992	New Zealand Telecom on the progress of competition in New Zealand telecommunications
1992	Rochester Telephone Company on corporate restructuring and deregulation
1992	Russian Government on economic reform
1991	British Mercury on terms of competition with British Telecom
1989	City of Denver on charging and financing of Stapleton Airport
1988-1990	Attorneys General, New York and Pennsylvania, on airline mergers
1985	Attorney General, State of Illinois, on Illinois Bell rates
1981-1984	City of Long Beach, California, the Coca-Cola Company and American Airlines on antitrust litigation
1981-	Economic commentary, Nightly Business Report (PBS)
1980-1982	Advisor to Governor Carey on Telecommunications Policy
1968	Ford Foundation
1966	National Commission on Food Marketing
1965, 1974	Federal Trade Commission
1963-1964	Antitrust Division, Department of Justice
1960-1961	U.S. Department of Agriculture
1957-1961	Boni Watkins, Jason & Co.

See also the list of testimony below.

# MEMBERSHIPS:

1992-	Member, New York State Telecommunications Exchange
1992-93	Member, Ohio Blue Ribbon Panel on Telecommunications Regulation
1991-	Board of Editors, <i>Review of Industrial Organization</i>
1990-92	Chairman, International Institute for Applied Systems Analysis Advisory Committee on Price Reform and Competition in the USSR
1986	Governor Cuomo's Advisory Panel on public power for Long Island

1983-89	Governor Cuomo's Fact-finding Panel on Long Island Lighting Company's Nuclear Power Plant at Shoreham, L.I.
1983-90	New York State Council on Fiscal and Economic Priorities
1982-	<i>The American Heritage Dictionary</i> Usage Panel
1982-1985	Governing Board, Common Cause
1980-1986	Director, New York Airlines
1978-1979	National Commission for the Review of Antitrust Laws and Procedures
1975-1977	Project Committee, Electric Utility Rate Design Study, Electric Power Research Institute
1974-1975	National Academy of Science Review Commission on Sulfur Oxide Emissions
1974-1977	Public Advisory Board, Electric Power Research Institute
1974-1977	Environmental Advisory Committee, Federal Energy Administration
1974-1977	Executive Committee, National Association of Regulatory Utility Commissioners, and Chairman, Committee on Electric Energy
1968-1974	Economic Advisory Board, American Telephone & Telegraph Corporation
1965-1967	Economic Advisory Committee, U.S. Chamber of Commerce
1967-1969	Chairman, Tompkins County Economic Opportunity Corporation
1964-1969	Board of Trustees, Cornell University
1961-1964	Board of Editors, <i>American Economic Review</i>
1953-1955	Attorney General's National Committee to Study the Antitrust Laws

#### HONORS AND AWARDS:

May 1995	Wilbur Cross Medal for outstanding achievement, Yale University
Mar 1989	Burton Gordon Feldman Award for Distinguished Public Service, Gordon Public Policy Center, Brandeis University
Feb 1989	Distinguished Service Award, Public Utility Research Center, University of Florida
Nov 1988	International Film and TV Festival of New York, Bronze Medal presented to The Nightly Business Report/WPBT2 for Editorial/Opinion Series written by Alfred E. Kahn
Apr 1986	Harry E. Salzberg 1986 Honorary Medallion for outstanding achievement in the field of transportation
Oct 1984	Distinguished Transportation Research Award of the Transportation Research Forum
1981-1982	Vice President, American Economic Association
1978	Richard T. Ely lecturer, American Economic Association, 1978
1978	Rejection Scroll, International Association of Professional Bureaucrats
May 1985	State University of New York (Albany), DHL (Hon.)
May 1983	Colgate University, LL.D. (Hon.)
June 1982	Northwestern University, LL.D. (Hon.)
May 1980	Ripon College, LL.D. (Hon.)
May 1979	University of Massachusetts, LL.D. (Hon.)
May 1978	Colby College, LL.D. (Hon.)
1977-	Fellow of the American Academy of Arts and Sciences
1976	Distinguished Alumni Award, New York University

1976	American Economic Association, Section on Public Utilities and Transportation, citation for distinguished contributions
1954-1955	Fulbright Fellowship, Italy
1935-	Phi Beta Kappa
1939-1940	Yale-Brookings Fellow

## BOOKS:

*The Economics of Regulation*, 2 volumes, John Wiley, 1970 and 1971. Reprinted by The MIT Press, 1988, with a new "Introduction: A Postscript, Seventeen Years After," pp. xv-xxxvii.

*Integration and Competition in the Petroleum Industry*, (with Melvin G. DeChazeau), Petroleum Monograph Series, Volume 3 (Yale University Press, 1959). Reprinted in 1971.

*Fair Competition: The Law and Economics of Antitrust Policy* (with Joel B. Dirlam) (Cornell University Press, 1954). Reprinted by Greenwood Press, 1970.

*Great Britain in the World Economy* (Columbia University Press, 1946). Reprinted in 1968.

## MAJOR ARTICLES:

"How to Treat the Costs of Shared Voice and Video Networks in a Post-regulatory Age," *Policy Analysis*, #264, November 27, 1996, Cato Institute.

"Competition and Stranded Cost Re-revisited," 36 *Natural Resources Journal* (1996) forthcoming.

"Deregulation of the Public Utilities—Transitional Problems and Solutions," *Economic Papers*, Economic Society of Australia, September 1995, pp. 1-17. (Published in *Réseaux* nos. 72-73 Juillet/Octobre 1995 by CNET as "Déréglementation des Services Publics: Problèmes transitoires et solutions.")

"The Challenge for Federal and State Regulators: Transition from Regulation to Efficient Competition in Electric Power," with William J. Baumol and Paul L. Joskow, Edison Electric Institute, December 9, 1994.

"Competition in the Electric Industry Is Inevitable and Desirable," *The Electric Industry in Transition*, Public Utility Reports, Inc. and New York State Energy Research and Development Authority, December 1994, Chapter 3, pp. 21-31.

"Can Regulation and Competition Coexist? Solutions to the Stranded Cost Problem and Other Conundra," *The Electricity Journal*, Volume 7, Number 8, October 1994, pp. 23-35.

"The Pricing of Inputs Sold to Competitors: A Comment," in *Yale Journal on Regulation*, Vol. 11, No. 1, Winter 1994, pp. 225-240.

"Airline Deregulation," in *The Fortune Encyclopedia of Economics*, David R. Henderson, Ph.D., ed., New York: Warner Books, 1993, pp. 379-384.

"Change, Challenge and Competition The Report of the National Commission to Ensure a Strong Competitive Airline Industry, August 1993," *Regulation*, No. 3, 1993.

"The Competitive Consequences of Hub Dominance: A Case Study," in *Review of Industrial Organization*, Vol. 8, 1993, pp. 381-405.

"Pricing of Telecommunications Services: A Comment," in *Review of Industrial Organization*, Vol. 8, 1993, pp. 39-41.

"The Purposes and Limitations of Economic Regulation; The Achievements and Problems of Deregulation" and "Reflections and Conclusions on British and U.S. Experience: The Future of Regulation," in *Incentive Regulation: Reviewing RPI-X & Promoting Competition, Proceedings 2*, Based on papers presented at two CRI seminars in London on 4 June and 15 July 1992, CRI (Centre for the Study of Regulated Industries), October 1992, pp. 1-17 and 93-104.

"Market Power Issues in Deregulated Industries," in *Antitrust Law Journal*, Vol. 60, Issue 3, American Bar Association, 1992, pp. 857-866.

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"Price Deregulation, Corporatization and Competition" (with M.J. Peck), in *What is to be Done? Proposals for the Soviet Transition to the Market*, M.J. Peck and T.J. Richardson, eds., New Haven: Yale University Press, 1991.

"Thinking About Predation--A Personal Diary," in *Review of Industrial Organization*, Vol. 6, The Netherlands: Kluwer Academic Publishers, 1991, pp. 137-146.

"An Economically Rational Approach to Least-Cost Planning For Electric Power," *The Electricity Journal*, Vol. 4, Number 5, June 1991, pp. 11-20.

"The Changing Focus of Electric Utility Regulation," *Research in Law and Economics*, Richard O. Zerbe, Jr., Victor P. Goldberg, eds., Vol. 13, JAI Press, Inc., Spring 1991, pp. 221-231.

"The Soviet Economic Crisis: Steps to Avert Collapse" (co-author), Executive Report 19, International Institute for Applied Systems Analysis, Laxenburg, Austria, February 1991.

"Telecommunications, Competitiveness and Economic Development--What Makes Us Competitive?," *Public Utilities Fortnightly*, Vol. 126, No. 6, September 13, 1990, pp. 12-19.



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"Airline Deregulation - A Mixed Bag, But a Clear Success Nevertheless," *Transportation Law Journal*, Volume 16, No. 2, Spring 1988, pp. 229-251.

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"Deregulatory Schizophrenia," *California Law Review*, Volume 75, Number 3, May 1987, pp. 1059-1068.

"A Critique of Proposed Changes," *The Future of Electrical Energy: A Regional Perspective of an Industry in Transition*, Sidney Saltzman and Richard E. Schuler (eds.), Praeger Publishers, New York, 1986, pp. 340-347.

"The Tyranny of Small Decisions and the Perils of Big Ones," in *Allocation, Ethics, and Innovation in Research and Public Policy*, National Symposium on Science and Technology, Cornell University, Washington, D.C., May, 20, 1986.

"The Theory and Application of Regulation," *Antitrust Law Journal*, Spring Meeting Issue, 1986, Volume 55, Issue 1, pp. 177-184, from ABA Antitrust Section Annual Meeting.

"Transportation Deregulation...And All That," Honorary Salzberg Memorial Lecture, Syracuse University School of Management, Syracuse, New York, April 1986. Reprinted, revised, in *Economic Development Quarterly*, May 1987, Volume 1, Number 2, pp. 91-99.

"Frontier Issues in Telecommunications Regulation," Mountain Bell Academic Seminar, Lakewood, Colorado, August 1985.

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"Public Policies for Our Telecommunications Future," in *Funding the Future of Telecommunications*, a conference sponsored by Rensselaer Polytechnic Institute, supported by the NYNEX Telephone Companies, Saratoga Springs, New York, June 3-5, 1985.

"Industrial Policy and Deregulation," *Federal Bar News & Journal*, Washington, D.C., January 1985.

First Distinguished Lecture on Economics in Government, "The Macroeconomic Consequences of Sensible Microeconomic Policies," Dallas, December 28, 1984. American Economic Association meetings.

"The Regulatory Agenda," and "Concluding Comments: The Future of Access," in Alan Baughcum and Gerald R. Faulhaber, *Telecommunications Access & Public Policy*, Ablex Publishing Corporation, Norwood, New Jersey, 1984, pp. 205-210 and pp. 245-253.

"The Uneasy Marriage of Regulation and Competition," *Telematics*, Washington, D.C., September 1984.

"The Next Steps in Telecommunications Regulation and Research," *Public Utilities Fortnightly*, Arlington, VA., July 19, 1984.

"The Road to More Intelligent Telephone Pricing," *Yale Journal on Regulation*, Volume 1, Number 2, 1984, pp. 139-157.

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